

A Structure Analysis of Regional Higher Education in the Sight of Ecology Based on the Empirical Research of Yunnan Province

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Abstract. This paper analyzes the structure of Yunnan higher education in the sight of ecology, The Purposes is to find out the regional differences of Yunnan higher education is extremely obvious on the layout and hierarchy structure; Through the analysis and comparison the regional differences of Yunnan higher education on the layout and hierarchy structure, I've come to the conclusion that higher education between region and intra-regional keep highly collaboration on the social economic environment. It belongs to the population of optimization distribution and shows material exchange of energy balance in the mass.

Keywords. the sight of ecology; regional higher education structure; higher education; Yunnan province

1 Producing questions: from the “higher education equilibrium”

The universal attention of balanced development of higher education area began at the end of the last century, however, from past to present, the higher education on the connotation of balanced development of regional expression still failed to form a unified, recognized standard. On this issue, although Suo Xiaohong, according to “the space distribution of higher education is relatively balanced, the balanced development of higher education type structure level, basic education and higher education, higher education and regional coordination between”, makes a “balanced” connection between the four dimensions, its significance is deeper in differentiating the general higher education area equilibrium from the education equilibrium.

Due to the current higher education area balancing in the connotation of definition and expression, the selection of indicators, the number of college students is per ten thousand people, indices such as number of graduates also fails to form a unified standard. In measuring the higher education area in the research method of equilibrium, standard deviation is calculated, and the number of differences between the inspection, the quadratic model regression analysis and other methods is chosen by the researchers; However, we believe that research on the issue of a no clear connotation, using any method, any measure are not reliable. Not only that, the existing higher education area balancing related to research and the same article all struggle on the countermeasures. And the proposed countermeasures are based on the expres-

ion of promoting the balanced development of higher education area. In other words, the researchers apparently think that our country's higher education widely exists in the area of non-balanced or unbalanced state, and the disequilibrium state is negative, at least higher education development in our country does more harm than good.

A clear fact is that equilibrium is not the same as the average. Prematurely to the pros and cons of this equilibrium state, one is lack of objective and rational criteria. On the other hand, it may be premature. Similarly, for a unclear connotation of things doing all kinds of judgment, the logical starting point of its research is questionable. We believe that the study of higher education equalization obviously is good, but it depends on us to find a possibility of the discriminatory model and standard, rather than taking the meaning of equilibrium for average, consistent with a balanced or unbalanced value judgment. At this point, the theory of ecology provides us with a view, namely in the study of higher education that is balanced, we need to focus on a higher education system in the material energy exchange between all the elements on whether coordination, and the coordination or uncoordinated status will cause adverse effects on the development of population.

Based on this understanding, our study only base on the perspective of ecology of the area of Yunnan province higher education structure rather than do simple analysis to the structure of balanced or unbalanced value judgments. And this study is to present state, rather than the analysis of advantages and disadvantages, and the ecology horizon, rather than the universal of truth, and a vision in the superficial leisure curiosity, rather than the ultimate conclusion of relative truth.

2 Empirical analysis: draw on the experience of related theory of ecology

According to the 2006 statistics, we can make an empirical analysis of Yunnan higher education layout structure, and the specific data are shown in table 1:

Table 1. Table of distribution of higher education in Yunnan province.

Local Class	Avatar Area	University Institutions	Percentage (%)	
Higher education core	Kunming	32	64.00%	68%
	Yuxi	2	4.00%	
Higher education abdominal region	Qujing	3	6.00%	24%
	Dali	1	2.00%	
	Chuxiong	2	4.00%	
	Honghe	1	2.00%	
	Baoshan	2	4.00%	
	Dehong	1	2.00%	
	Xishuangbanna	1	2.00%	
The edge area of higher education	Lijiang	1	2.00%	8%
	Wushan	1	2.00%	
	Simao	2	4.00%	
	Lincang	0	0.00%	
	Zhaotong	1	2.00%	
	Nujiang	0	0.00%	
	Diqing	0	0.00%	

From the above data, by 2006, there were all kinds of 50 colleges and universities in Yunnan. If taking the 16 states in Yunnan as the second level of regional comparison respectively, on the layout of higher education, the time distribution should be 3.57 levels of regional colleges and universities in order to realize “balanced”. In this sense, in 16 states of Yunnan and Qujing city, only higher education layout satisfies the requirement of the “equilibrium”; similarly, if the 16 states in Yunnan by Yunnan geographic book are three major economic zones according to division, the layout of the number of colleges and universities should be 16.67 for the balance. In this sense, only with the relatively close to 12 colleges and universities in higher education abdominal region.

Introducing the theory of ecology of population spatial pattern, we can clearly identify that, Yunnan in 2006 on the layout structure of colleges and universities is to center around the state city of crowd’s type distribution, and the population size in number and great difference. That is to say, according to the provincial capital city of Kunming, which is the most concentrated, other state central city population size is relatively consistent. From the theory of ecology spatial pattern distribution reasons, “the uneven distribution of environment resources, rich and poor halved; plants make them to disperse their seeds according to diffusion center; social behavior which animals species groups” are the main factors of the distribution of population groups.

Relating to the actual economic and social development and resource distribution, Yunnan Kunming centered capital cities and states around the center of the city, which is really in the resource distribution profile (economic conditions, social environment, the resources supply situation, population concentration, teachers, students, education infrastructure and social and cultural development level, etc.) to superior to other areas in the province, therefore it has formed the higher education in Yunnan in the layout structure of what we see on the “capital city plus after the central city “into a group of distribution.

Not only that, from the influence factors of human behavior, existing layout structure of higher education in Yunnan can also be found in social behavior. Currently, except for the provincial department of Yunnan University to build the rest of the colleges and universities in Yunnan to provincial education department management, distribution of Yunnan Normal University in Kunming, Kunming University of Science and Technology Department, Kunming Medical College, Yunnan University of Finance and Economics Department, Yunnan Agricultural University and other schools are all departmental level and distributed in the central city in the state of Yuxi Teachers College, Chuxiong normal college, Qujing Normal College and other colleges and universities is of the school. The layout structure and the administrative levels and administrative levels of the region have certain correlations, conforming to the ecological planning of “people-oriented, on the premise of resource environmental bearing capacity.” The basic connotation is also accord with human social behavior on the population distribution pattern of the control and influence.

In other words, taking the related theory as the analytical paradigm of ecology, higher education in Yunnan is in conformity with the layout of the existing structure in the field of ecology type distribution in groups, with their respective regional distribution of resources, environmental factors and direct link and species behavior are highly consistent, and there is no such thing as an “equilibrium” sexual problem.

Based on the analysis of Yunnan higher education layout structure, it is necessary for us to make an analysis of this area of the development of higher education and regional correlation (collaborative) in order to test whether higher education structure in Yunnan province coordinate with the regional social and economic elements such as coordinated development, whether they belong to higher education and the resources and environment of the steady state operation. Specific data are shown in table 2:

Table 2. 2008 HAI and FMI coordination in Yunnan province cities states.

Area	HAI's Class level	FMI's Class level	Coordination ^a
Kunming	First Class	First Class	HAI=FMI
Qujing	Second Class	Third Class	HAI≥FMI
Yuxi	Third Class	Second Class	HAI≤FMI
Baoshan	Third Class	Fourth Class	HAI≥FMI
Zhaotong	Fourth Class	Fifth Class	HAI≥FMI
Chuxiong	Second Class	Fourth Class	HAI>FMI
Honghe	Third Class	Second Class	HAI≤FMI
Wenshan	Fourth Class	Fourth Class	HAI=FMI
Pu'er	Third Class	Fourth Class	HAI≥FMI
Xishuangbanna	Fourth Class	Third Class	HAI≤FMI
Dali	Third Class	Third Class	HAI=FMI
Dehong	Fourth Class	Third Class	HAI≤FMI
Lijiang	Third Class	Third Class	HAI=FMI
Nujiang	Fifth Class	Fourth Class	HAI≤FMI
Diqing	Fifth Class	Third Class	HAI<FMI
Lincang	Fourth Class	Fifth Class	HAI≥FMI

^aThe same(=)、better than (>)、fall behind (<)、A little behind (≤)、Slightly better than (≥)

From Yunnan higher education and the economic and social development in the collaborative analysis we can see: in the 16 states in Yunnan, the development of higher education and economic society on the whole maintained a high level of synergy. Not only that, even it is applied according to the judge about the three divisions made before, the result is still applicable. Represented by Kunming of Yunnan higher education core area, the development of higher education and economic society highly coordinated, and are represented in Chuxiong, Zhaotong, etc. After the higher education of the abdomen area, edge area, between higher education and economic and social development, there are only slightly differences. In this sense, the development of higher education in Yunnan remains generally correspondent to the local economic and social development states, not showing large deviations.

From the ecological point of view, this kind of collaboration is for the higher education system with the surrounding environment in the material energy and information exchange on the smooth and steady, which is the ecological balance. Higher education system is open with a range of controllability of ecosystem, its all for the material energy exchange with the outside world. From students enrolled to charging tuition, from personnel training to employment guidance, from the lecturer introducing to teaching, from logistics to the discipline construction, higher education system in every job can't from its inherent social attribute and natural attribute. We should interact with the surrounding environment, all by social policy factors, all by the restriction of the social economic level, all by social and cultural factors, the formation of education system itself and the environment interact with self-regulating mechanism of positive feedback or negative feedback, and then in the material energy exchange balance.

Thus we can see that, the results of the analysis of coordination with social and economic development of Yunnan higher education not only shows the social environment of Yunnan higher education and the steady state of the material energy exchange, at the same time also shows the influence of social and economic environ-

ment of higher education and the constraints, both being general benign interaction.

3 Conclusion and consideration: take a look at higher education equalization

The structure of regional higher education ecology analysis of Yunnan province, as the object of empirical study, on the whole, shows that on the layout structure, higher education in Yunnan in distribution, population ecology on the hierarchy and the specific area of resources and environment for Rongli consistent, higher education as a whole with the regional coordinate development of social economy. Specifically, the empirical analysis of Yunnan higher education from the ecology structure gives us some superficial conclusion:

A. On the layout structure, higher education in Yunnan province cities are at the center of the capital city and shows state of crowds type distribution, and it is relatively concentrated on the distribution of provincial capital;

B. The development of higher education in Yunnan show great regional differences in a hierarchical structure. Higher education core centered about more than 70% of the undergraduates, the province and the edge of the education area are all belong to college level of education, but in the overall is consistent with the capacity of regional investment environment;

C. The development of higher education in Yunnan province overall coordinate with local social and economic level, basic material and energy exchange in balance and optimal distribution of population.

However, we also notice that the conclusion of this study with the existing education presents the intricacies of the contradiction between equilibrium theory, having different answers. But in Brubeck's words: "contradiction is complicated, education practice is the basis of the theory of testing these practices", therefore, it is necessary for us to do some basic formulation of existing education balanced shallow reflection. From the philosophical point of view, the connotation of balanced development of higher education area is the area of higher education and regional coordinated development of social economy, the

progress in the contradictory unification and development. And based on the empirical analysis of the present study, some basic understanding are based on the above, we think that the related principle of ecology provides us with some different thinking, namely the energy flow and material cycle in ecological system of usually severe interference (no force) are always smooth. At the same time, the structure of the ecosystem also maintains a relatively stable state, and the stable state is different from the entire ecosystem of biological factor in their respective formed by reasonable ecological niche. In this sense, the balance of ecological system from the elements within the system is to keep the relatively appropriate relationship with surrounding elements and they are at the same level. For our higher education, balanced development of the research provides a new way of thinking, namely on the problems of higher education balancing, we should put more emphasis on a particular area of higher education in the discipline structure, level structure, specialty structure and regional structure, which is with the local environment (such as political environment, economic environment, social environment, etc.) coordinated factor, if achieving a coordination between the two, we should say that higher education is balanced in this area. In other words, the so-called “balance” and “unbalanced” is only a probable state of higher education, rather than as a “reasonable” or “unreasonable” discriminatory basis. Equilibrium and disequilibrium of area in a certain historical period may promote or inhibit the comprehensive development of higher education. Definitely not the balanced development of the development of

higher education ought to be state of equilibrium, and disequilibrium are not pure value criterion for the development of higher education, the key question is: “to certain objective conditions, as the leaders of policy makers, they should take” equilibrium “or” unbalanced “attitude to develop regional higher education. Or under certain historical condition, the regional development of higher education in a balanced or unbalanced state in the region should be much more able to lead more adaption to the development of economy and society.

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